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ABSTRACT

This paper discusses two federal programs designed to promote equal employment opportunities for women. It analyzes the impact of the federal contract compliance program (affirmative action) and Title VII of the Civil Rights Act of 1964 on the absolute level of the earning of black and white working women over the 1967-1974 period. It was found that both programs increased the earnings of women for this period of time. Moreover, it was found that the programs were effective in different ways, and that because of this they are complementary tools for reducing discrimination in employment. Enforcement of Title VII increased earnings primarily within industries and occupations. The federal contract compliance program increased earnings by lessening entry restrictions across industries and occupations, thus allowing women to move into higher paying jobs. Since the two programs are complementary, the entire equal employment opportunities effort could be made more effective if the programs were coordinated. It is noted that the charge system operating in Title VII is an effective mechanism for reducing discrimination in employment. The visibility of enforcement that accompanies the investigation of a charge provides a deterrent to discrimination that appears to extend beyond the scope of the original charge. It is also noted that black females appeared to have benefited greatly from enforcement of the sex discrimination provisions of the act. (Author/AM)

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EEO LAWS AND THE EARNINGS OF WOMEN

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EEO LAWS AND THE EARNINGS OF WOMEN

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VII. RACE DIFFERENTIALS IN THE FEMALE WORKFORCE

EEO Laws and the Earnings of Women*

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The question of whether Equal Employment Opportunity (EEO) laws improve the economic position of women and minorities carries considerable public policy interest. In order to justify the expenditure of (additional) federal resources, social programs are often subjected to close public scrutiny. As women and minorities demand stricter and more extensive enforcement of EEO laws, it is important to know whether the existing programs are effective.

Two federal programs promote EEO for women and minorities. The federal contract compliance program, commonly referred to as affirmative action, follows Executive Order 11246, issued in 1965, as amended and covers employment practices in firms holding federal contracts. Title VII of the Civil Rights Act of 1964, as amended in March 1972 (Title VII), covers employment practices in a broader range of firms—those with 15 or more employees, state and local governments, and educational institutions. Despite its broader coverage, the scope of enforcement activities under Title VII is limited almost exclusively to the processing of individual charges of discrimination. Affirmative action programs set goals and timetables for broad ranges of job categories and for multiple groups; these programs are not an inherent part of the typical Title VII settlement. Title VII enforcement activities, though generally of "limited scope," nevertheless may provide a deterrent against all forms of discrimination. Under both laws, employment practices are defined broadly to include discrimination in hiring, discharge, transfer, training, compensation, and other terms and conditions or privileges of employment.

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In this paper, we analyze the impact of these two programs on the absolute level of the earnings of black and white working women over the period 1967–74. There is little empirical evidence on the effect of EEO laws on earnings. Moreover, the evidence that is available shows mixed results. Two time-series studies show evidence of an upward trend in the earnings of blacks relative to whites after the passage of Title VII in 1964. Both conclude that this trend is attributable to the effect of Title VII.[1] Two cross-sectional studies found that between 1959 and 1969 enforcement of EEO laws reduced the earnings of black males relative to white males.[2]

Elsewhere I have discussed in detail the expected effects of enforcement of the employment and wage provisions of EEO laws on relative earnings in the economy.[3] Covered firms in violation of the employment provision increase their demand for the minority group relative to the majority. If compliance with this provision results in an upgrading of minority workers, then enforcement will increase average relative earnings. Although relative earnings increase in those covered firms that previously violated but now comply with the wage provision, these firms hire less of the more costly minority labor than they otherwise would have (assuming that they were in equilibrium previously). The resulting unemployment of minority group workers will put downward pressure on relative earnings in the rest of the economy. Hence, on the average, enforcement of the wage provision may increase or reduce relative earnings. Thus, the overall effect of enforcement on relative earnings in the economy, the net effect of enforcement of these two provisions, is ambiguous.

Specification of the Model

Our model is a modified version of the human capital earnings function which relates an individual's earnings to its basic determinants. We estimate earnings functions for time periods before and after enforcement takes place, with the enforcement variables included in both cross-sections. In the equation for the preenforcement cross-section, the enforcement variable represents anything that varies systematically, among states (Title VII) or industries (contract compliance), with sub-

[1] Richard B. Freeman, "Changes in the Labor Market for Black Americans, 1948–72," *Brookings Papers on Economic Activity*, 4 (1:1973), pp. 67–131; Wayne Vroman, "Changes in the Labor Market Position of Black Men Since 1964," in *Proceedings of the 27th Annual Meeting, IRRA* (Madison, Wis.: The Association, 1975), pp. 294–306.

[2] Andrea H. Beller, "The Economics of Enforcement of Title VII of the Civil Rights Act of 1964," Discussion Paper 313-75, Institute for Research on Poverty, University of Wisconsin, October 1975; James P. Smith and Finis R. Welch, "Black/White Male Earnings and Employment: 1960–70," R-1666-DOL (Santa Monica, Calif.: Rand Corporation, June 1975).

[3] Beller, pp. 3–10.

sequent variation in enforcement activity. For example, states that have greater enforcement activity may have higher earnings than other states prior to enforcement due to the social activism of the population. Industries that sell a large portion of their output to the federal government may have higher wages than other industries due to factors such as cost-plus pricing. If the relationship between enforcement and earnings changes after enforcement takes place, we can argue that the difference is attributable to enforcement activities.[4] The functions are specified as follows:

$$(1) \quad \ln W_{i,t} = b_t + E_{j,t}\,\beta_t + F_{i,t}\,\gamma_t + X_{i,t}\,\delta_t + u_t$$

$$(2) \quad \ln W_{i,t-1} = b_{t-1} + E_{j,t}\,\beta_{t-1} + F_{i,t-1}\,\gamma_{t-1} + X_{i,t-1}\,\delta_{t-1} + u_{t-1}$$

where $\ln W_i$ = the natural logarithm of weekly earnings of the individual woman; E_j = a vector of enforcement variables assigned to each individual on the basis of geographic area and type of employer for Title VII and industry of employment for federal contract compliance; F_i = a vector of female labor force commitment characteristics; X_i = a vector of the usual variables included in the human capital earnings function; β,γ,δ = vectors of parameters on enforcement, labor force commitment, and human capital variables, respectively; u = a disturbance term with the classical properties; t = 1974; and $t-1$ = 1967. The estimated effect of enforcement on earnings is equal to $(\beta_t - \beta_{t-1})$.

E_j includes measures of enforcement of Title VII and of federal contract compliance. Enforcement of Title VII is measured by two types of variables. The first, the incidence of enforcement, is estimated by the ratio of total investigations completed by the EEOC to the number of women (from the subgroup in question) who worked during 1970. This variable, which is designed to measure enforcement visibility, has been discussed extensively in my earlier paper on this subject.[5] The greater the visibility of enforcement, the greater the deterrent effect of enforcement and the greater the expected effect of enforcement on earnings. Enforcement of Title VII is also measured by the probability of a successful settlement of a case, estimated by the ratio of successful settlements to attempted settlements. This variable measures the probability that, once there is a cause finding in a case, the employer involved will increase the wages of an individual or group of individuals discriminated against, hire or promote a minority group member or woman, etc. Given

[4] This model is incomplete in the sense that we cannot establish with certainty a causal link between enforcement activities and earnings. It may be that pressures brought about by civil rights activism cause both high levels of enforcement and greater increases in earnings. If we could measure social activism, we could specify a model that took it into account. Unfortunately, it is not possible to do so at the present time.

[5] Beller, pp. 10–12.

the incidence of enforcement, the greater the probability of a successful settlement, the greater the expected marginal penalties for discrimination and the greater the expected effect of enforcement on earnings.

Each of these two measures has been further classified by the period during which enforcement took place and by the basis of the original charge of discrimination. We have distinguished between enforcement which took place before and after Title VII was amended in March 1972. In addition to expanding the law's coverage, the amendments gave the EEOC the right to sue a respondent, thereby granting stricter enforcement powers to the enforcement agency. It is hypothesized that, as a result of the greater coverage and stricter enforcement powers, enforcement in the later period would have a stronger effect on earnings than enforcement in the earlier period. We have also distinguished between enforcement on the basis of race (black) discrimination and on the basis of sex discrimination. Of the race discrimination charges, we have included only those filed by females. We estimate the effect of enforcement for race discrimination on the earnings of black females and of sex discrimination on the earnings of all females. Each of these eight measures has been assigned to women in the sample on the basis of (1) geographic location—23 state groups, and (2) class of worker—private wage or salary and government, or industry of employment in the case of persons employed by educational institutions.[6]

Enforcement of the federal contract compliance program is measured by a single variable, the federal share of industry product, estimated by the ratio of purchases by the federal government to value-added originating in an industry. It has been hypothesized by Smith and Welch that federal efforts on affirmative action are likely to be more successful in industries in which the government is a major purchaser than in industries in which government purchases account for only a small share of the total output.[7]

F_i measures identifiable characteristics, considered to be proxies for female labor force commitment, that have been found to be associated with earnings differentials among women. We have included in the F_i vector the traditional marital status variables, dummies representing single and other married (the omitted category is married, spouse present), and a variable representing the number of children. In addition, we include two measures of current labor supply, weeks worked

[6] The class-of-worker distinction is made because employees of state and local governments and educational institutions were not covered by Title VII until after it was amended in 1972. Hence, we computed separate measures of enforcement for the private sector, excluding educational institutions, and for government and educational institutions.

[7] Smith and Welch, p. 10. I wish to thank these authors for allowing me to use their data on government shares of industry output.

last year (in logs), and whether work last year was part time. Recent work has shown that, due to heterogeneity in the female workforce, current work status is a good predictor of the lifetime labor supply of women.[8] Moreover, differences among women in expected labor force participation over the life cycle lead to differences in postschool investment and hence, to differences in earnings.[9] In light of the heterogeneity argument, current work status may be a relatively good proxy for postschool investment, which cannot be measured directly. Finally, we introduce a proxy for specialization in home activities. This variable, a dummy which takes on the value of 1 when a woman reports the main reason for part-year work as home activities, is intended to capture the woman's own evaluation of her commitment (whether out of preference or necessity) to home specialization.

The X_i vector represents other variables that are known to affect earnings. These include years of schooling, experience, region, urban-rural residence, and race, as well as a dummy for employment by government since government earnings are known to be higher than in the private sector. These variables are measured in the usual manner.

The data sources for earnings and the variables included in the F_i and X_i vectors are the U.S. Census Bureau's Annual Demographic File of the 1975 and 1968 Current Population Survey (CPS). We have included in our sample all women who worked and had at least $100 in wage or salary income in 1974 or 1967. Self-employed women are excluded. A total of 21,181 white women and 2,681 black women are included in the 1974 sample, and 20,690 white women and 2,944 black women in the 1967 sample. The relatively small number of black women causes relatively large sampling errors, making it more difficult to observe statistically significant changes in earnings for this group than for white women.

Summary of Findings

Table 1 presents the sample mean incidence of enforcement and probability of successful settlement by basis for the periods before and after Title VII was amended. After the law was amended, the mean incidence of enforcement for sex discrimination tripled; however, it remains lower than for race discrimination. For both bases, the mean probability of successful settlement increased following amendment, at-

[8] James J. Heckman and Robert J. Willis, "A Beta-Logistic Model for the Analysis of Sequential Labor Force Participation by Married Women," *Journal of Political Economy*, forthcoming.

[9] Jacob Mincer and Solomon Polachek, "Family Investment in Human Capital: Earnings of Women," *Journal of Political Economy*, vol. 82 (March/April 1974), pp. S76–S108.

TABLE 1
Sample Mean Incidence of Enforcement and Probability of Successful Settlement by Basis, for the U.S., 1968–74

	1968–March 1972	April 1972–1974	Difference of Means
Incidence of enforcement (per 1000 employees[a])			
Sex	0.1	0.3	+0.2
Black female	0.9	1.7	+0.8
Probability of successful settlement (given cause finding and attempted settlement)			
Sex	.501	.541	+.040
Black female	.460	.529	+.069

Source: Equal Employment Opportunity Commission charge inventory data.
[a] The base for sex (race) discrimination charges is all women (black women) who had private wage and salary or government employment during 1970.

taining a better than 50 percent chance that a settlement will be successful.

We estimated earnings functions for women for 1967 and 1974. From these equations we computed the effect of enforcement of Title VII as the difference between the estimated coefficients on the enforcement variables from the two cross-sections. These estimated coefficient differences are presented in the upper panel of Table 2. It was hypothesized that, as a result of greater coverage and stricter enforcement powers, enforcement in the later period would have a stronger effect on earnings than enforcement in the earlier period. The significance of the incidence of enforcement variables only is consistent with this hypothesis. Given the argument that the incidence of enforcement measures visibility of enforcement, these results probably reflect the impact of the law's extended coverage. As suggested earlier, the relatively small number of black females in the sample makes it more difficult to observe statistically significant changes in earnings for this group than for white females. The effect of enforcement of sex discrimination charges on the earnings of all females is in every case more significant than the effect of race discrimination charges on the earnings of black females; the two cases for which the effect of enforcement is insignificant are for black females.

According to the estimated coefficients, during the later period an increase in the incidence of enforcement for sex discrimination of three investigations per 10,000 working women (the mean value of this variable) increases earnings by 2.4 percent; an increase in the probability of successful settlement from .4 to .6 increases earnings by 1.6 percent. Both the incidence and success measures show a net effect on earnings which is positive for two out of the four period-basis groups, insignificant for one out of the four, and negative for one out of the four. Moreover,

TABLE 2
Magnitude and Significance of Effect of Enforcement of Title VII for Race and Sex Discrimination on Female Earnings Without and With Control for Industry and Occupation for the United States, 1967–74

Weekly Earnings of (Basis)	Incidence of Enforcement	Probability of Successful Settlement
No Control for Industry or Occupation		
1968–March 1972		
Black females (race)	None	+.141 (1.93) *
All females (sex)	+.163 (1.97) **	−.078 (2.31) **
April 1972–1974		
Black females (race)	−.032 (2.20) **	None
All females (sex)	+.081 (2.73) ***	+.080 (2.24) **
Controlling for Industry and Occupation		
1968–March 1972		
Black females (race)	None	+.110 (1.65) *
All females (sex)	+.144 (1.81) *	None
April 1972–1974		
Black females (race)	None	None
All females (sex)	+.052 (1.82) *	+.063 (1.85) *

Source: 1968 and 1975 CPS. The equations from which these coefficient differences were computed are available from the author upon request.
*, **, *** Significant at the 10%, 5% and 1% levels, respectively.

evaluated at their mean values and summing over both periods, each measure shows a net positive impact on the earnings of women. Evaluated at its mean, the incidence of enforcement for sex discrimination increased female earnings by 1.8 percent during the early period and 2.5 percent during the later period for a total increase of 4.3 percent. Evaluated at its mean, the probability of successful settlement for sex discrimination reduced female earnings by 3.9 percent during the early period, but increased them by 4.3 percent during the later period for a net increase of 0.4 percent. Combining both measures evaluated at their means, enforcement for sex discrimination during the period 1967 through 1974 caused the 1974 earnings of women to be 4.7 percent higher than they otherwise would have been. The probability of successful settlement for race discrimination increased the earnings of black females by 6.5 percent during the early period; the incidence of enforcement decreased black female earnings by 5.3 percent during the later period. The net effect of enforcement for race discrimination between 1967 and 1974 on the earnings of black females in 1974 was an increase of 1.2 per-

cent. Therefore, the net effect of enforcement of Title VII on the earnings of black women and all women between 1967 and 1974 (a period during which the economy experienced a recession) was positive.

The effect of enforcement on earnings can arise in two ways. Enforcement can affect earnings within industries and occupations and/or can change the distribution of women across industries and occupations. Industrial and occupational distributions may improve as a result of lessening of entry restrictions or may deteriorate as a result of (1) enforcement of the wage provision which, by reducing the employment of women in the covered sector, may force some women to take lower-paying jobs outside the covered sector or, (2) if enforcement increases labor force participation and the new entrants or reentrants move into relatively low-paying jobs. By controlling for industry and occupation, we can determine what portion of the effect of enforcement on earnings is due to changes within industries and occupations; the remainder is due to shifts in employment across industries and occupations. These effects were combined in the estimates discussed above. The lower panel of Table 2 shows the estimated effects of enforcement on earnings within industries and occupations. While all of the positive coefficient differences in this panel are slightly smaller than the comparable ones in the upper panel, both of the negative coefficients, which are among the most significant in the upper panel, disappear. These results imply that (1) most, but not all of the increase in earnings due to enforcement comes from increases within industries and occupations, with the balance of the increase due to the lessening of entry restrictions across industries and occupations; and (2) the entire decrease in earnings due to enforcement comes from shifts in employment across industries and occupations.

The difference between the estimated coefficients on the federal contract compliance variable in the later and the earlier cross-sections is positive and significant at the 10 percent level when we do not control for industry and occupation; the difference is insignificant when we control for industry and occupation. These results suggest that affirmative action has a small positive effect on the earnings of women due entirely to lessening of entry restrictions across industries and occupations.

In two more complex versions of the model, we tested for a differential in the effect of enforcement of Title VII for sex discrimination on the earnings of black and white females and for an effect of enforcement for race discrimination on the earnings of white females. The effects of enforcement for sex discrimination are in the same direction for both races and are of a slightly larger magnitude for black females. Enforcement for race discrimination has no significant effect on the earnings of white females.

Conclusions and Policy Implications

It has been found that both federal programs designed to promote EEO for women and minorities, Title VII of the Civil Rights Act of 1964 and federal contract compliance, increased the earnings of black and white working women between 1967 and 1974. Moreover, we found that the programs are effective in different ways, and conclude from this that they are complementary tools for reducing discrimination in employment. Enforcement of Title VII increases earnings primarily within industries and occupations. It also causes some reduction in earnings due either to disemployment in the covered sector caused by enforcement of the wage provision or to the labor force entry or reentry of women into relatively low-paying jobs. The federal contract compliance program increases earnings by lessening entry restrictions across industries and occupations, thus allowing women to move into higher-paying jobs. Since the two programs are complementary, the entire EEO effort could be made more effective if the programs were coordinated. Further, evaluation of Title VII leads us to conclude that the charge system, which has been subject to attack because it works on a case-by-case basis, is an effective mechanism for reducing discrimination in employment. The visibility of enforcement that accompanies the investigation of a charge provides a deterrent to discrimination that appears to extend beyond the scope of the original charge. Finally, while enforcement of Title VII for race discrimination increased the earnings of black females, black females appear to have benefited even more from enforcement for sex discrimination. Sex discrimination enforcement may be the more powerful tool for increasing the earnings of women because of the sex segregation of occupations.

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